



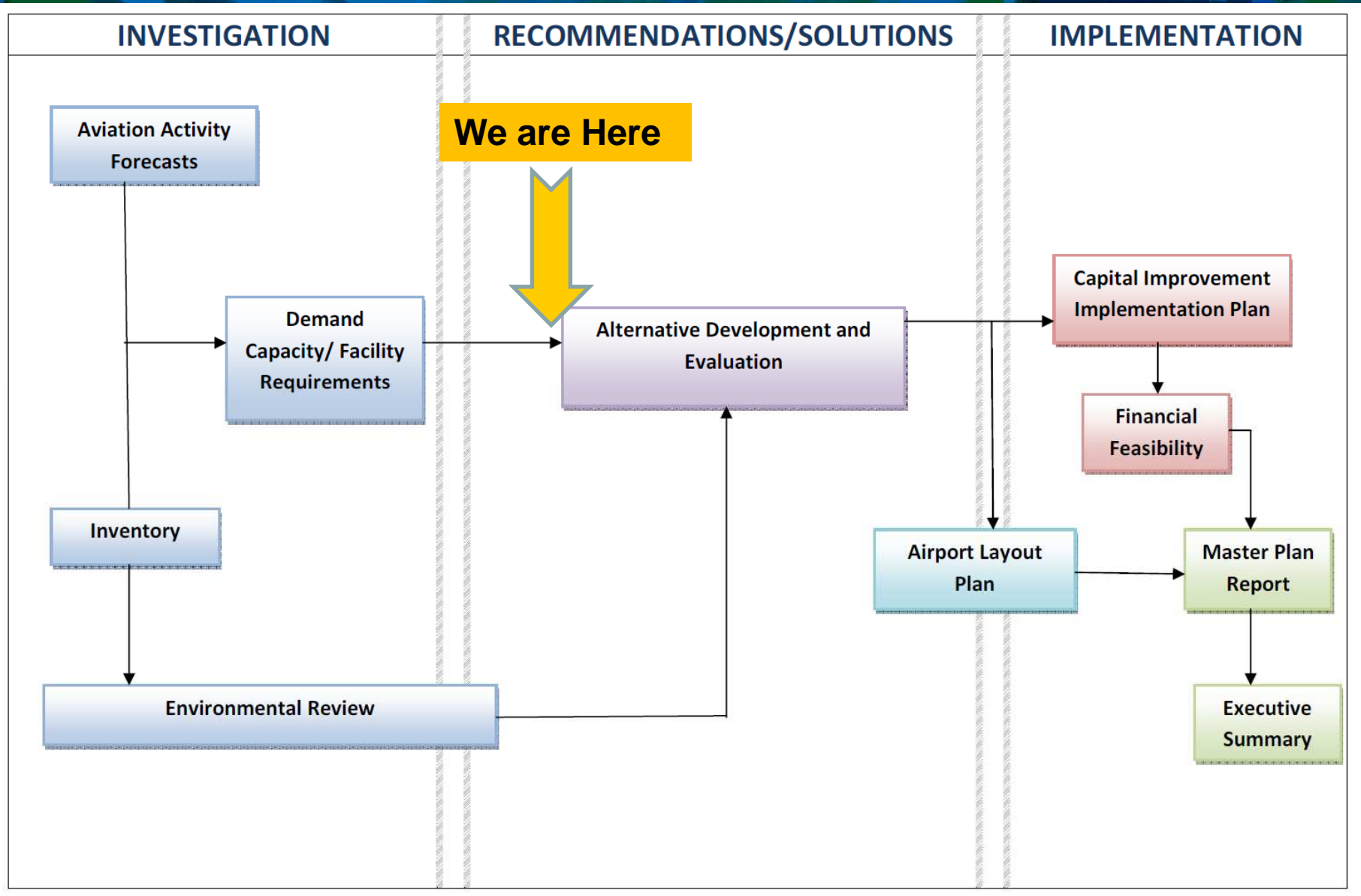
St. Lucie County International Airport (FPR)

*Master Plan Update
Technical Advisory Committee (TAC)
Workshop/Meeting #3
June 30, 2009*





Master Plan Progress





Purpose of Workshop

- ▶ *What is the purpose of this workshop?*
- ▶ *What issues need to be resolved?*
 - ▶ *Community's Perceptions of Airport*
 - ▶ *Community's short and long-term vision*
 - ▶ *Target Industry development*
 - ▶ *Land Use (On and Off Airport)*
 - ▶ *Long-Term Development*
- ▶ *How will public participate?*





Public Participation



Comment/Speaker Card
St. Lucie County International Airport Master Plan Workshop
June 30, 2009

Name: _____

Telephone #: _____

E-Mail Address: _____

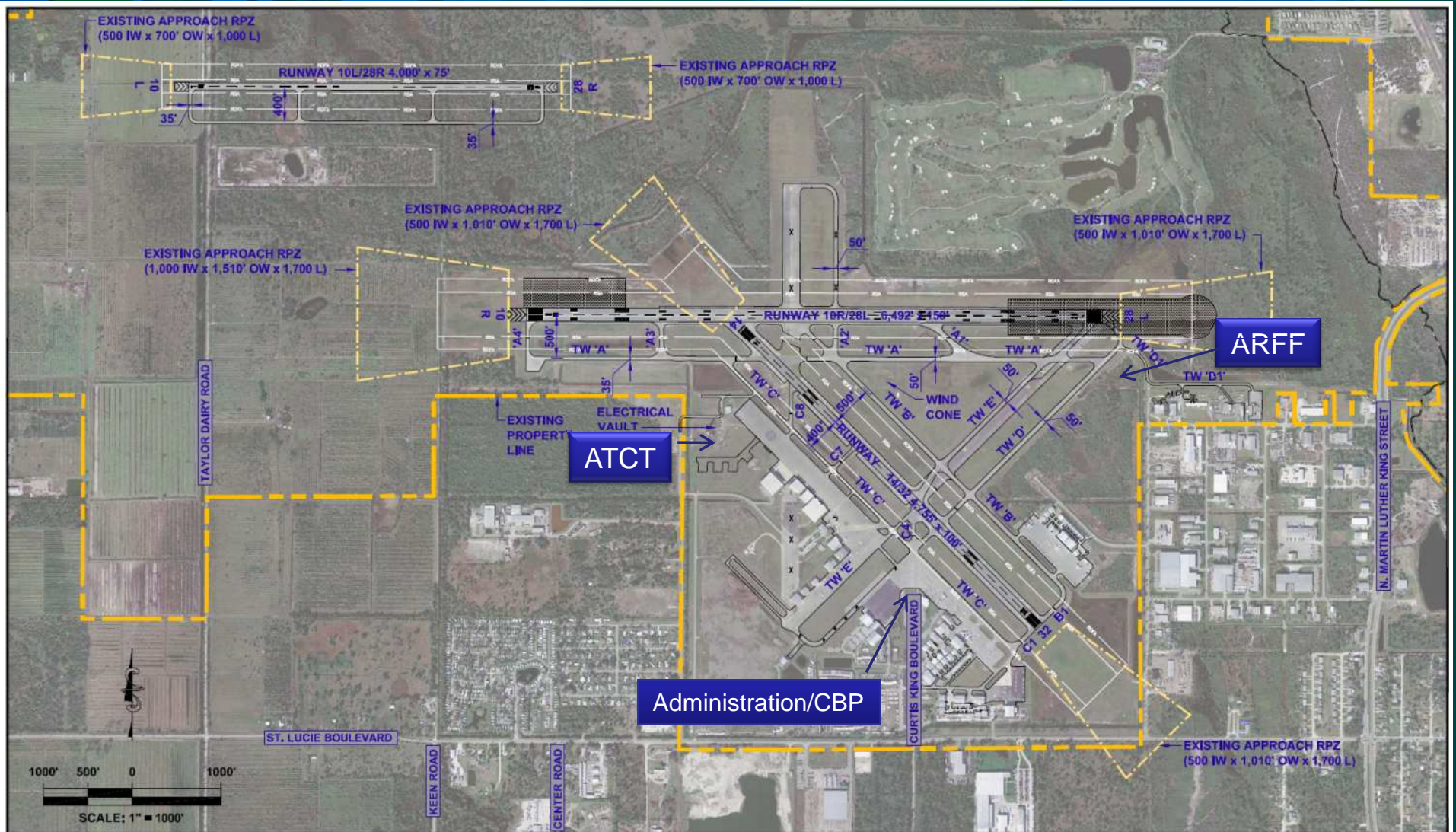
Do you wish to speak (if time allows): ☐ Yes ☐ No

Topic (Please Print):

Note: If speaking, please limit comments to 3-minutes. All information obtained will be incorporated in the master plan. Comments may also be provided via Master Plan Website at <http://www.stlucieco.gov/airportmasterplanfeedback.asp>



Airfield Facilities Familiarization





Airport Perceptions

Exercise 1





Community Perceptions

Airport Advantages (Assets)

- ▶ *i.e. Location to Port*
- ▶ *Infrastructure – Highway/Rail*
- ▶ *Acreage*
- ▶ *Underutilized*
- ▶ *Access to Bahamas*
- ▶ *Draws Industry*
- ▶ *Onsite Customs*
- ▶ *International Airport*
 - ▶ *Foreign Trade Zone*
 - ▶ *Commercial/Volume*
- ▶ *Proximity to Tourist Destinations*

Airport Disadvantages (Liabilities)

- ▶ *i.e. Distance from Residents*
- ▶ *Pavement Strength*
- ▶ *Surface Access and Signage*
- ▶ *Lack of Industry in Area*
- ▶ *Lacks Part 139 (Commercial Service) Certification*
- ▶ *Limited Commitments*
- ▶ *Environmental Issues*
- ▶ *Lack of Utilities*



Community Perceptions

- ▶ *Air Traffic Control Tower (ATC)*
 - ▶ *Corporate/Commercial Pilots – Perceive ATC as Advantage*
 - ▶ *Leisure GA Pilots (including gliders) – Perceive ATC as Disadvantage*
- ▶ *Overall Public Perceptions*
 - ▶ *General Public assumes that Airport requires large amounts of public funding to operate – Perceived Disadvantage.*
 - ▶ *The Airport is self-sufficient, and is using Golf Course rent to pay back previous General Fund contributions – Advantage*
- ▶ *Four Airports within 90 minute drive*
 - ▶ *Competition – Disadvantage*
 - ▶ *Commercial Service and Expanded Destinations - Advantage*



Prioritize Issues

▶ *Operational*

- ▶ *Runway Length and Strength*
- ▶ *Surface Access*
- ▶ *Utilities*
- ▶ *Permitting*

▶ *Planning*

- ▶ *Multi-Modal Plan*
- ▶ *Facilities (Airside and Landside)*
- ▶ *Runway Length and Strength Requirements*
- ▶ *Energy*
- ▶ *Non-Aviation*
- ▶ *Permitting*

▶ *Economic*

- ▶ *Business Development (Market Study)*
 - ▶ *Torrey Pines Institute for Molecular Research*
 - ▶ *Mann Research Center, LLC.*
 - ▶ *Vaccine & Gene Therapy Institute*
- ▶ *Homeland Security*
- ▶ *Tri-County Effort*
- ▶ *Energy*
- ▶ *Aviation/ Non-Aviation Development – needed to fund local share of planned airport development*



Strategic Vision

Future Airport Development Exercise 2





Strategic Visioning Exercise

- ▶ *General Aviation or Commercial Service?*
- ▶ *On-airport land use (Uses and Opportunities)*
- ▶ *Existing Airport Strengths and Weaknesses*
- ▶ *Engine for Economic Development?*
- ▶ *Future Land Use – On and Off Airport*





TAC Airport Vision

Future Newspaper Headlines

- ▶ 15-20 Years: *"Medium Density Commercial Airport including international cargo port with the Bahamas/Caribbean – A Leader in Visionary Development"*
- ▶ *"The St. Lucie County International Airport will have I-95 Access as a result of a land swap with the Cloud Grove Tract. Negotiations are underway to develop the Airport similar to the Orlando Sanford Airport Facility with the ultimate goal of offering international flights to our Area"*
- ▶ *"United Airlines to start Next Generation, Non-Stop service to Chicago"*
- ▶ *"Regional Hub for the Treasure Coast – offering Airport Trade Free Zone and Jump-off Location for Caribbean Tourism"*
- ▶ *"St. Lucie County International Airport leads four county region in Corporate Traffic"*
- ▶ *"Airport Expansion needed for Future Community Development"*
- ▶ *"St. Lucie becomes Home for New Efficient Aircraft Engine Firm"*
- ▶ *"New St. Lucie International Gateway Terminal Opens...One more Step in Supporting Local Tourism"*
- ▶ *"Full Commercial Service to Major U.S. Cities. Supports rental car companies and attracts Cargo Operators from Major Shipping Companies to Support Local Facilities and Seaport"*



St. Lucie County
International Airport
on Florida's Treasure Coast





TAC Airport Vision

Future Newspaper Headlines

- ▶ *"New St. Lucie International Gateway Terminal Opens...One more Step in Supporting Local Tourism"*
- ▶ *"Full Commercial Service to Major U.S. Cities. Supports rental car companies and attracts Cargo Operators from Major Shipping Companies to Support Local Facilities and Seaport"*
- ▶ *20Year Vision: "The People's Gateway to St. Lucie County"*
- ▶ *90 Year Vision: "Land Here in the Southern Most Floridian Airport"*
- ▶ *"New Regional Airport to Break Ground: The Treasure Coast, All Four County Governments Working Together to Build a Regional Commercial Airport and Rail System to Serve the Treasure Coast"*



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Committee's Long Term Vision Future Commercial Service

Existing Airport

- ▶ *Justification, BCA and Environmental Studies*
- ▶ *Land Available*
- ▶ *Reuse of existing facilities*
- ▶ *Additional infrastructure and access*
- ▶ *Existing revenue stream*

New Site

- ▶ *Site Selection, Feasibility and Environmental Studies (~10 years)*
- ▶ *Land Acquisition*
- ▶ *Zoning and land use protection*
- ▶ *Access and Infrastructure*
- ▶ *Green Site development*
- ▶ *Grant Assurances and Funding*



Special Uses and Opportunities

▶ *Target Industries*

- ▶ *Aviation*
- ▶ *Corporate training and shared services*
- ▶ *Biomedical and Technology*
- ▶ *Institutional – Aviation*
- ▶ *Security and National Defense*
- ▶ *Regional Distribution*
 - ▶ *Inland Port – FDOT Report*
 - ▶ *2-3 Selection Sites (Ocean Shipping and Aviation)*
- ▶ *Bonded Warehouse , etc.*



St. Lucie County
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Special Uses and Opportunities

- ▶ *NextGen Technology (Dr. Dave Byers)*
 - ▶ *Improves Safety using GPS Technology*
 - ▶ *Use of Local Area Augmentation (LAAS) and Wide Area Augmentation Systems (WAAS)*
 - ▶ *South Florida Service Area Established*
 - ▶ *Runway 32 RNAV Approach – Sept 2009*
 - ▶ *Established Air Traffic Control Coverage (Miami ARTCC)*
 - ▶ *More Controller Flexibility*
 - ▶ *More Efficient Use of Airspace*
 - ▶ *Saves Fuel*
 - ▶ *Improves Air Quality*
 - ▶ *Reduces Noise*
 - ▶ *Reduces Aircraft Separation, etc.*
- ▶ *Sustainable Development (Green)...*



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St. Lucie Positives: Aviation

- ▶ *Typically Recession Resistant*
- ▶ *Wealth Creating Industry*
- ▶ *More Training = Higher Wages*
- ▶ *Compliments other Industries*
- ▶ *Uncluttered Airspace*
- ▶ *Land for Expansion*
- ▶ *Two Fixed Based Operators...*





Economic Development Opportunities

- ▶ *Aviation Maintenance, Repair and Overhaul*
- ▶ *Homeland Security and Defense*
- ▶ *Aviation Related Training*
- ▶ *Aviation Related Distribution*
- ▶ *Disaster Recovery....*



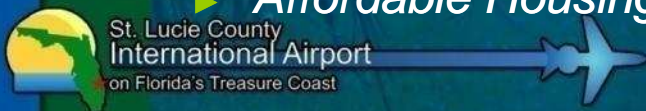
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Committee Comments and Perceptions

- ▶ *Airports currently use leaded fuel (100LL); but Jet A is Kerosene*
- ▶ *Airports should be located away from the Coast and Residents; Coastal Land considered high value.*
- ▶ *If close existing airport, County will need to deal with existing government grant assurances.*
- ▶ *Need for multi-modal transportation.*
- ▶ *Does lack of commercial service negatively impact economic development?*
 - ▶ *Yes – St. Lucie recently lost Burnham Institute for Medical Research to Orlando Area (Major Int'l Airport, Schools & Thriving Arts Scene)*
- ▶ *What Factors Attract Businesses?*
 - ▶ *Commercial Airport*
 - ▶ *Schools and Infrastructure*
 - ▶ *Labor Base*
 - ▶ *Affordable Housing, etc*





Committee Comments and Perceptions (Con't)

- ▶ *According to Mr. Chris Hambleton of Volo Aviation Inc., airport activity at FPR developed as follows:*
 - ▶ *1980's*
 - ▶ *US Customs drove Growth*
 - ▶ *Increased flight training*
 - ▶ *1990's*
 - ▶ *US Customs Demand Reduced*
 - ▶ *Airport tried to attract facilities and businesses*
 - ▶ *Cheaper to live in St. Lucie County compared to southern counties (i.e. Dade, Palm Beach, etc.)*



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Committee Comments and Perceptions (Con't)

- ▶ 2000-2005
 - ▶ *US Customs decreases hours of operations at FPR*
 - ▶ *Less Investment Interests*
 - ▶ *Banks not supporting development*
 - ▶ *People not going to the Bahamas*
 - ▶ *Local Resorts not Attracting People*
- ▶ 2009 and Beyond
 - ▶ *What's Next?*
 - ▶ *How Should Airport/County Reinvent Itself?*
 - ▶ *Neighboring Counties starting to Cooperate*



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Land Use

On and Off Airport

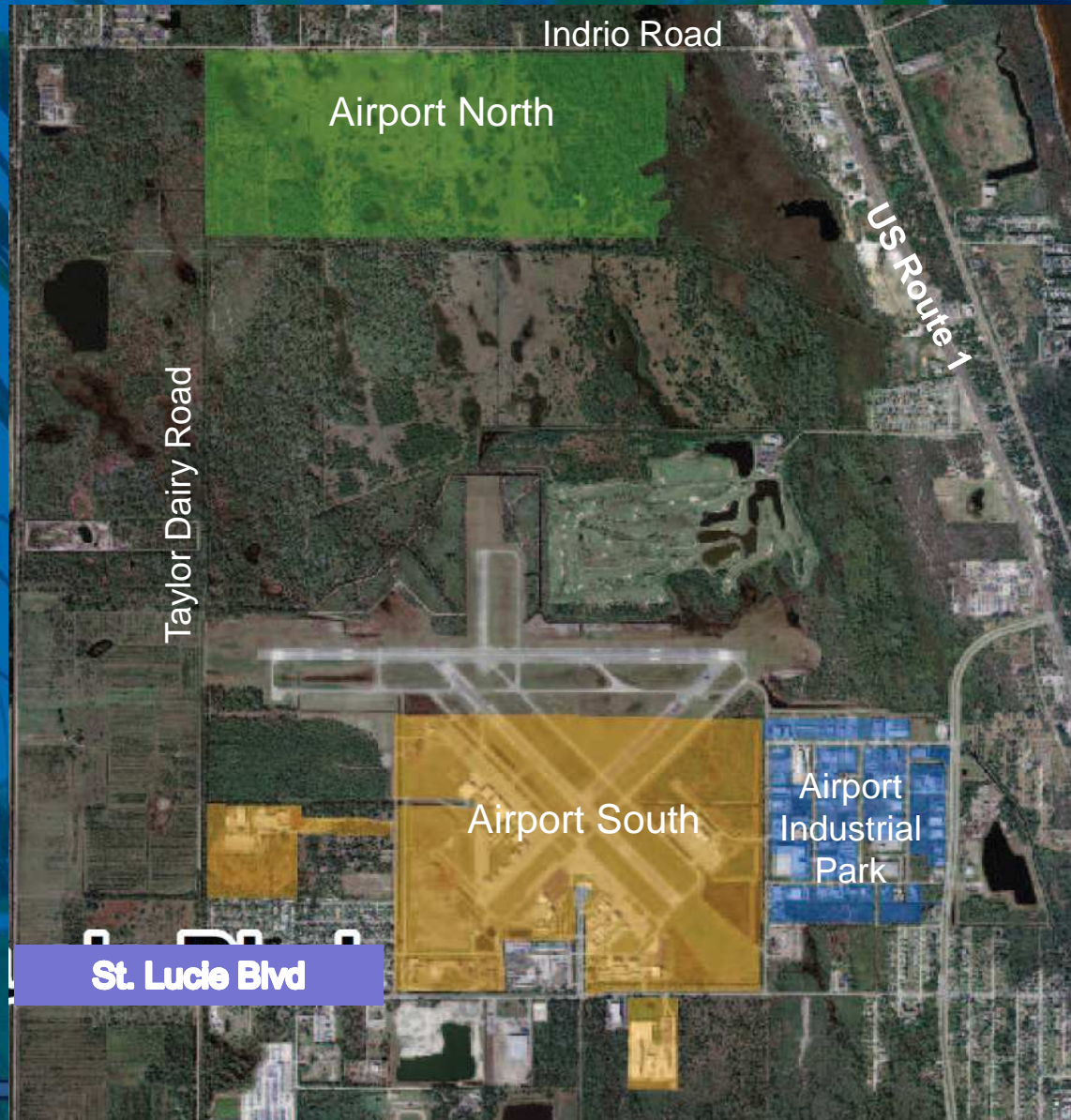


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Airport Foreign Trade Zones





County Zoning



St. Lucie County Zoning

Legend

AG-1	HRD	R/C	RS-2
AG-2.5	I	RE-1	RS-3
AG-5	IH	RE-2	RS-4
AR-1	IL	RF	RVP
CG	IX	RM-5	U
CN	PMUD	RM-9	
CO	PMRD	RM-11	
CPUB	PUD	RMH-5	
			Municipal limits
			Road & canal rights of way

Note: This map is for general planning purposes only and is subject to change. For information on specific parcels, please consult the Growth Management Department.

Source: St. Lucie Growth Management





Future Land Use

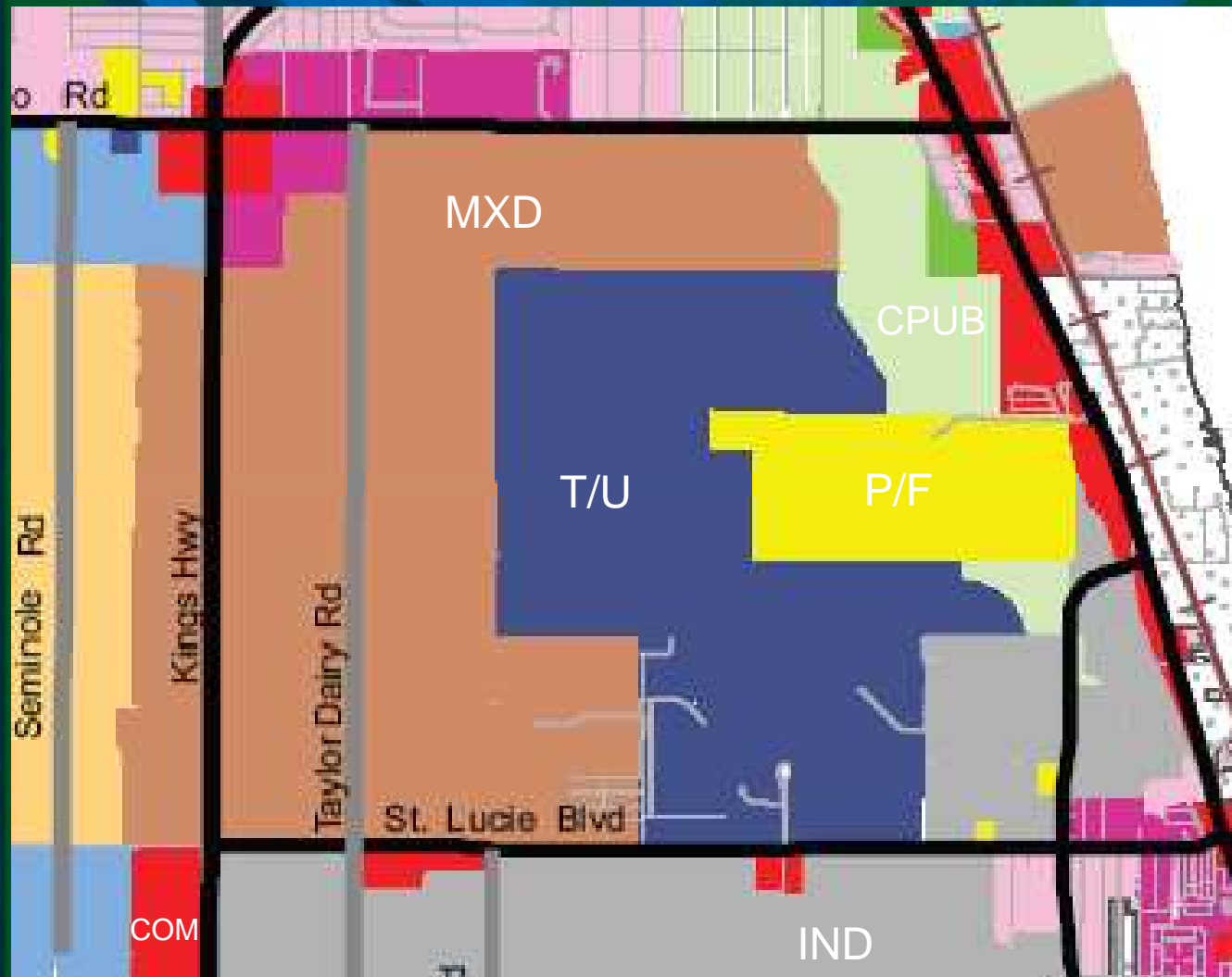
Future Land Use

Legend

Future Land Use Category

CPUB	AG-2.5
R/C	COM
RE	IND
RS	P/F
RU	T/U
RM	HIST
RH	SD
AG-5	MXD

Urban Service Boundary
Road & canal rights of way
Municipal limits



September 2008

Source: St. Lucie Growth Management

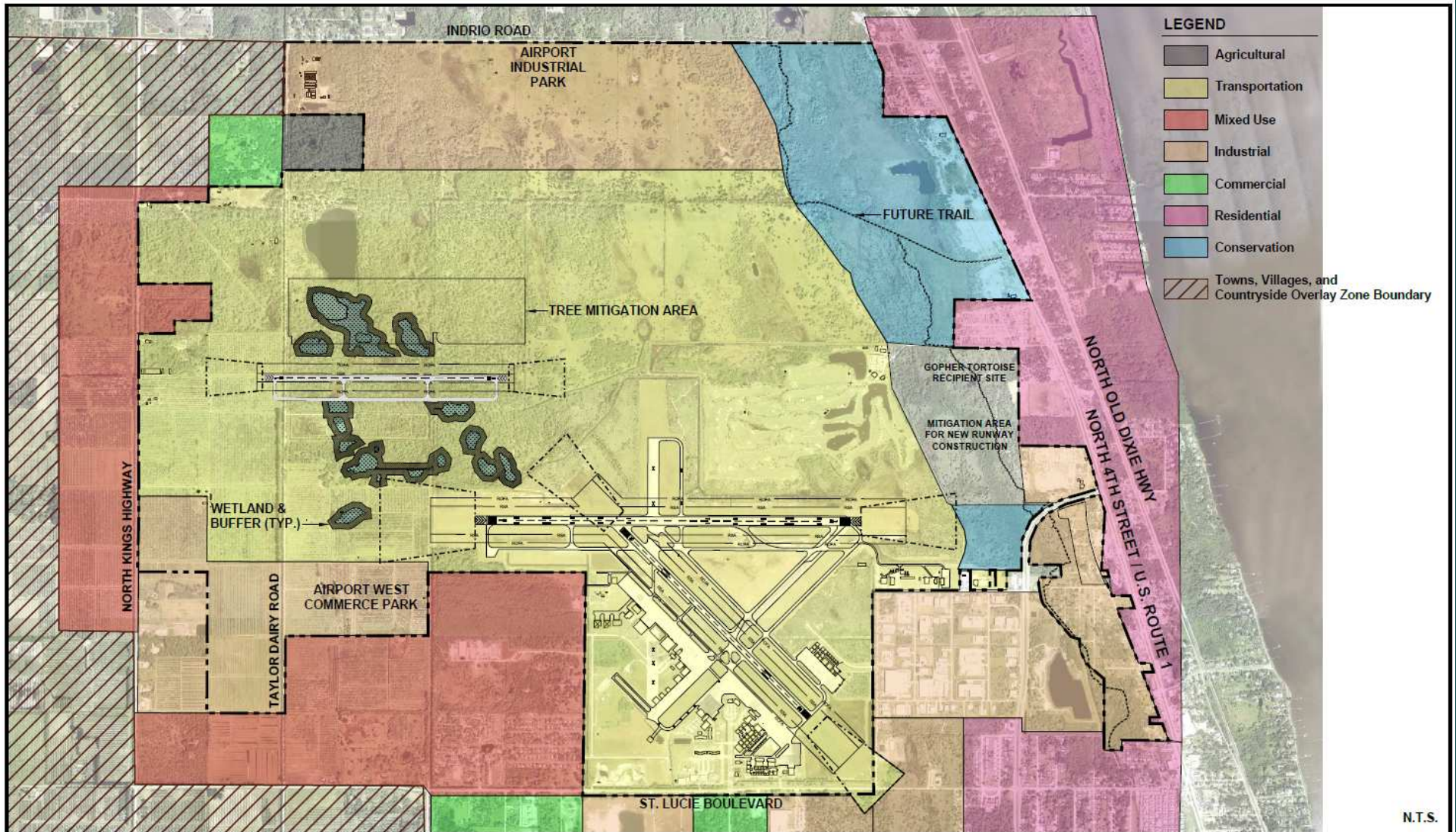


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Future Land Use



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on Florida's Treasure Coast



THE LPA GROUP



Airport Facility Requirements

Overview





Airfield Facility Requirements

Runway, Taxiway & Apron Needs

- Resolve Intersection – Runway 14
- Extend Taxiway B
- Preserve land for extension of Runway 10R
- Preserve land for future airfield expansion and terminal development
- Rehabilitate pavement on Runway 10R-28L and Taxiways A, B, C and E
- Provide taxiway to Runway 10L-28R
- Widen and extend Taxiway A
- Widen Taxiways C, D1 and E to 50'
- Add holding pads

Other Airfield Needs

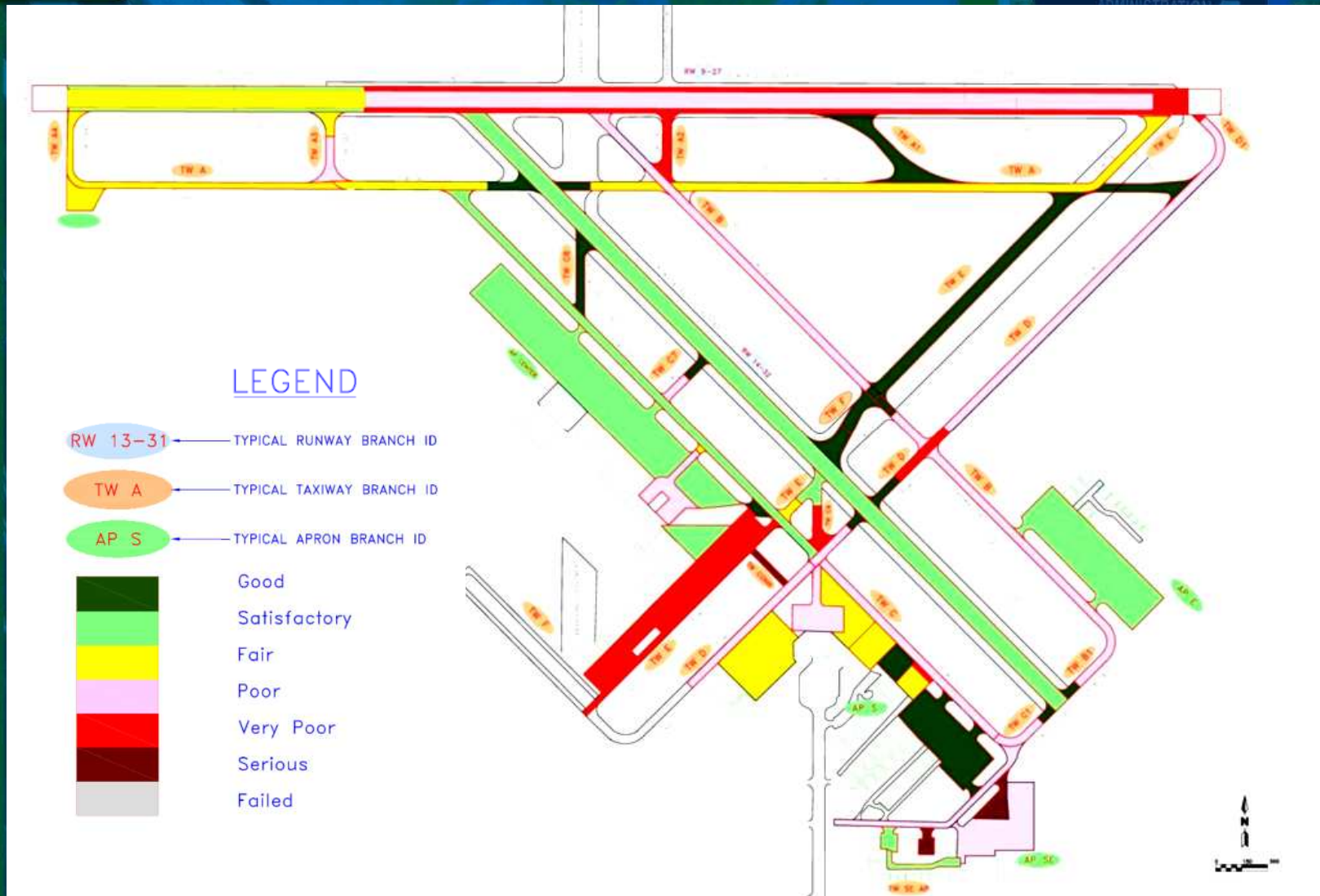
- Install Approach Lighting to Runway 10R
- Install REILs on Runways 28L, 14 and 32
- Upgrade Runway 10R-28L lighting to HIRL
- Upgrade Signage and NAVAIDs
- Upgrade Electrical Vault
- Relocate/Add Wind Cones and Segmented Circle

Land Acquisition

- Associated with Runways 32 RPZ

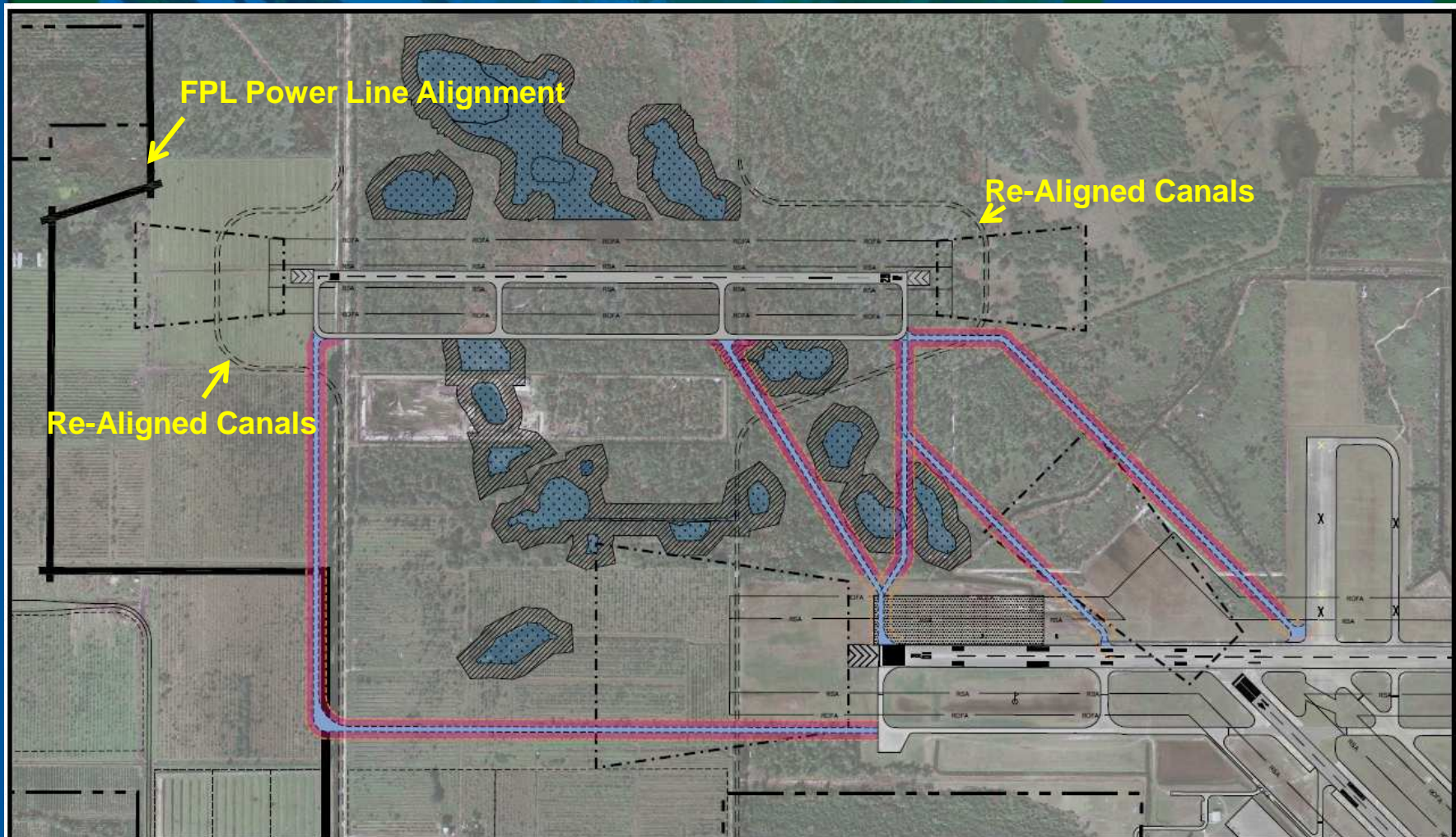


Pavement Condition



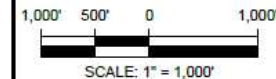


Runway 10L-28R Taxiway Alternatives



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RUNWAY 10L-28R TAXIWAY
ALTERNATIVES

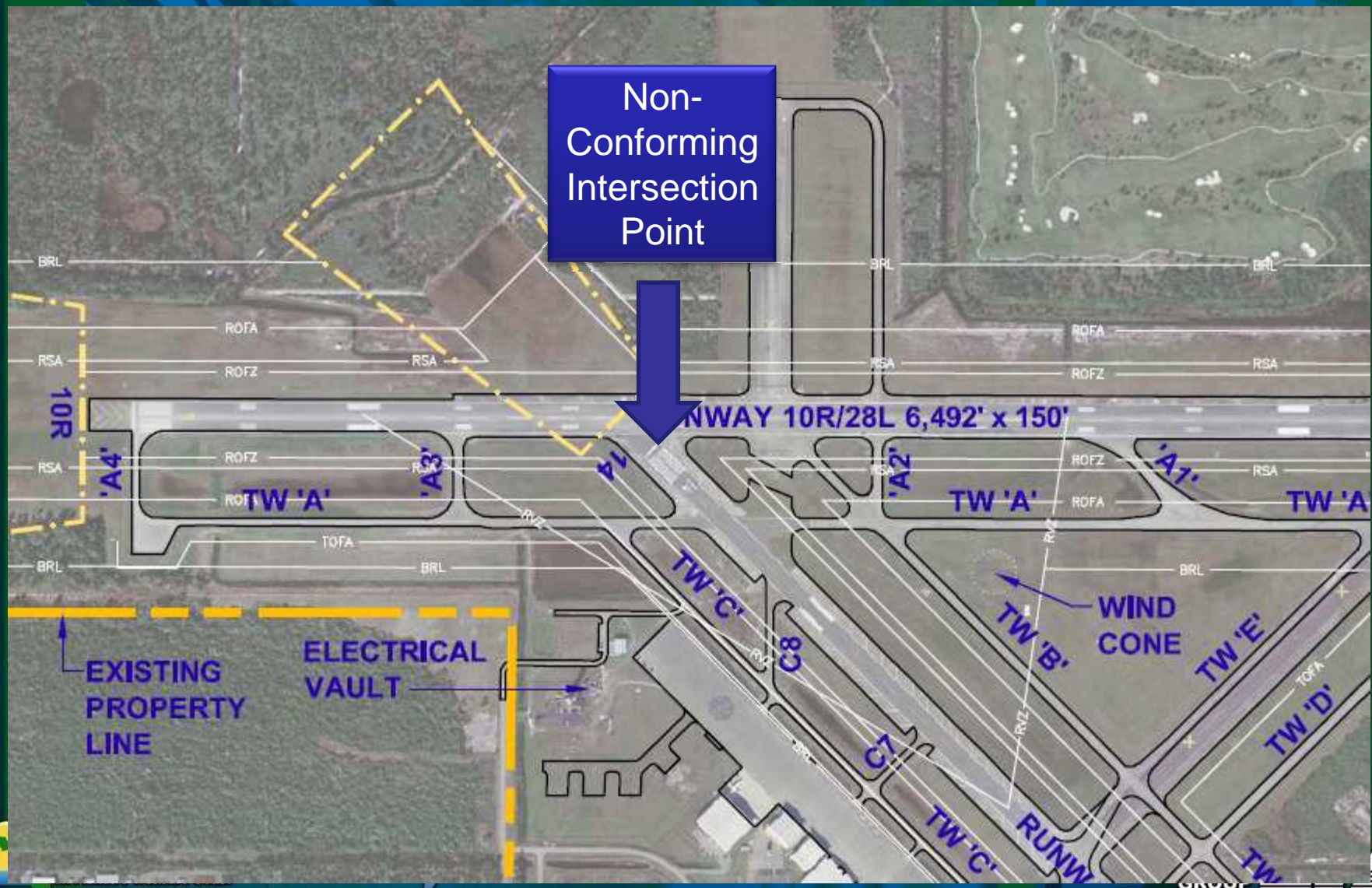


DATE
09/25/2008

FIGURE NO.



Non-Conforming Runway Intersection

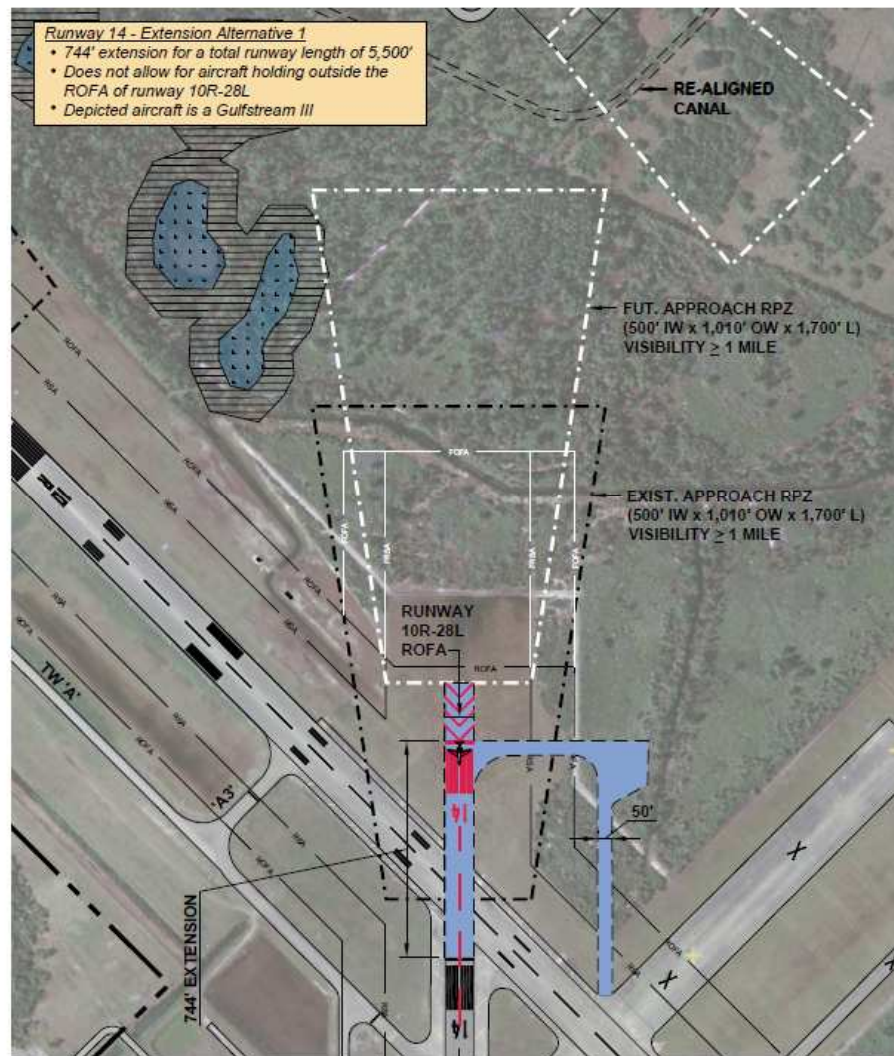




Extension of Runway 14-32

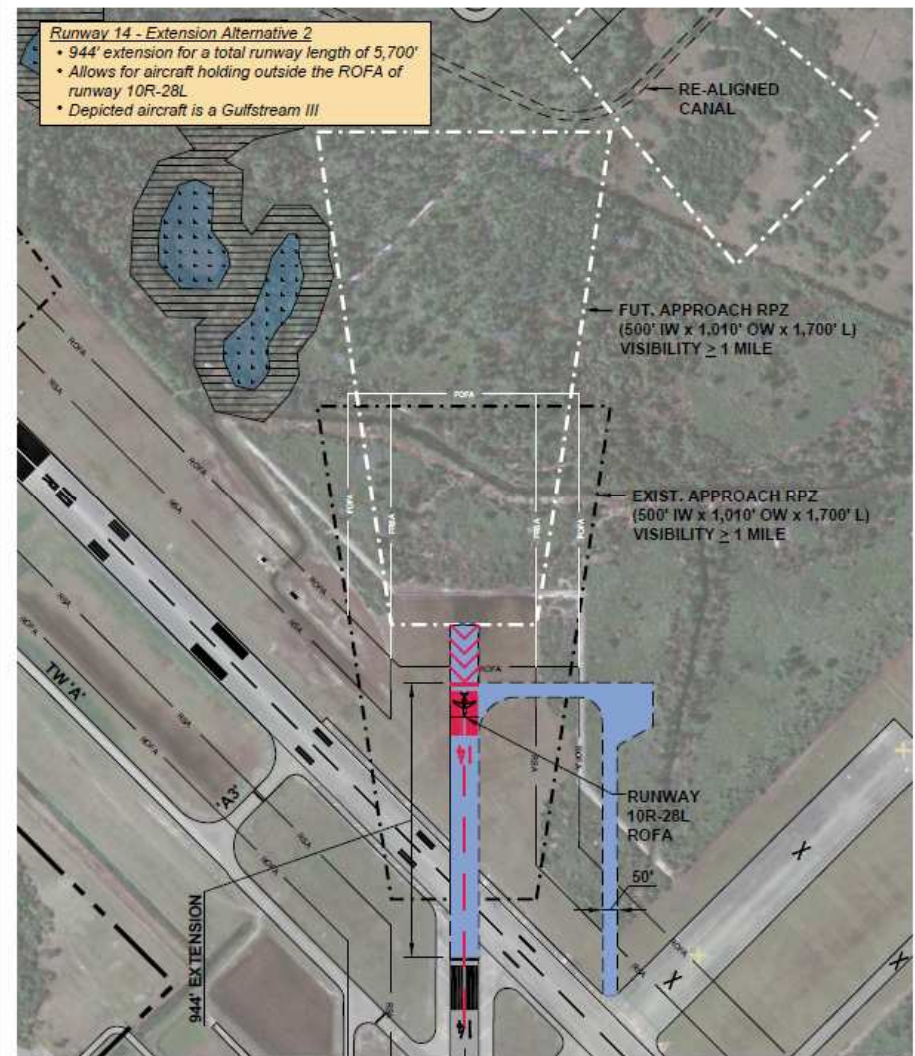
Runway 14 - Extension Alternative 1

- 744' extension for a total runway length of 5,500'
- Does not allow for aircraft holding outside the ROFA of runway 10R-28L
- Depicted aircraft is a Gulfstream III



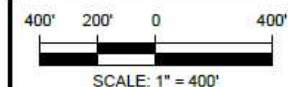
Runway 14 - Extension Alternative 2

- 944' extension for a total runway length of 5,700'
- Allows for aircraft holding outside the ROFA of runway 10R-28L
- Depicted aircraft is a Gulfstream III



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RUNWAY 14 EXTENSION
ALTERNATIVES

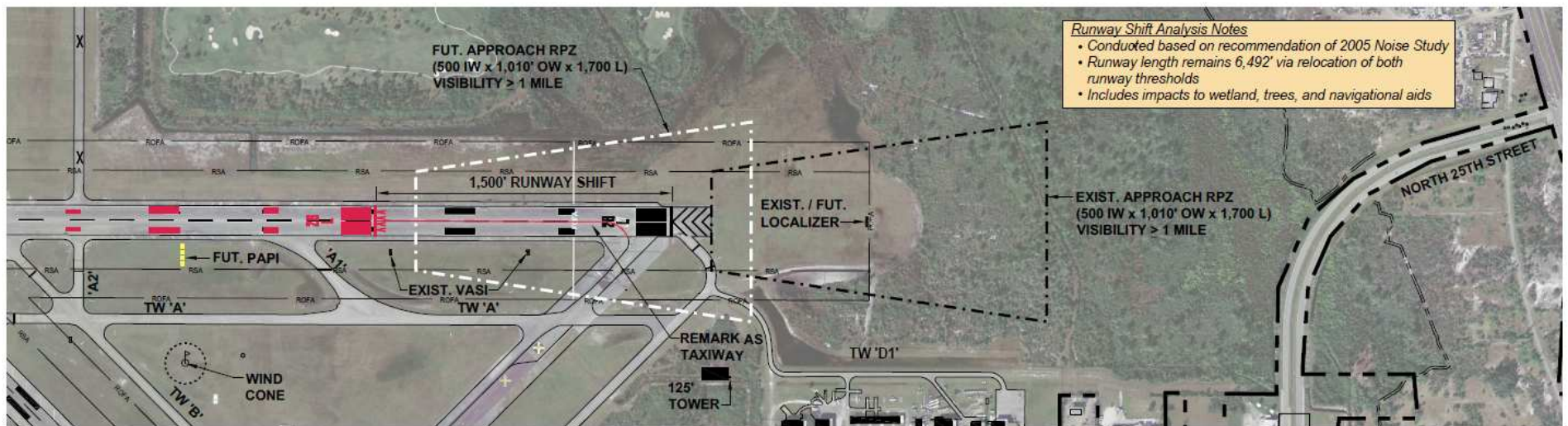
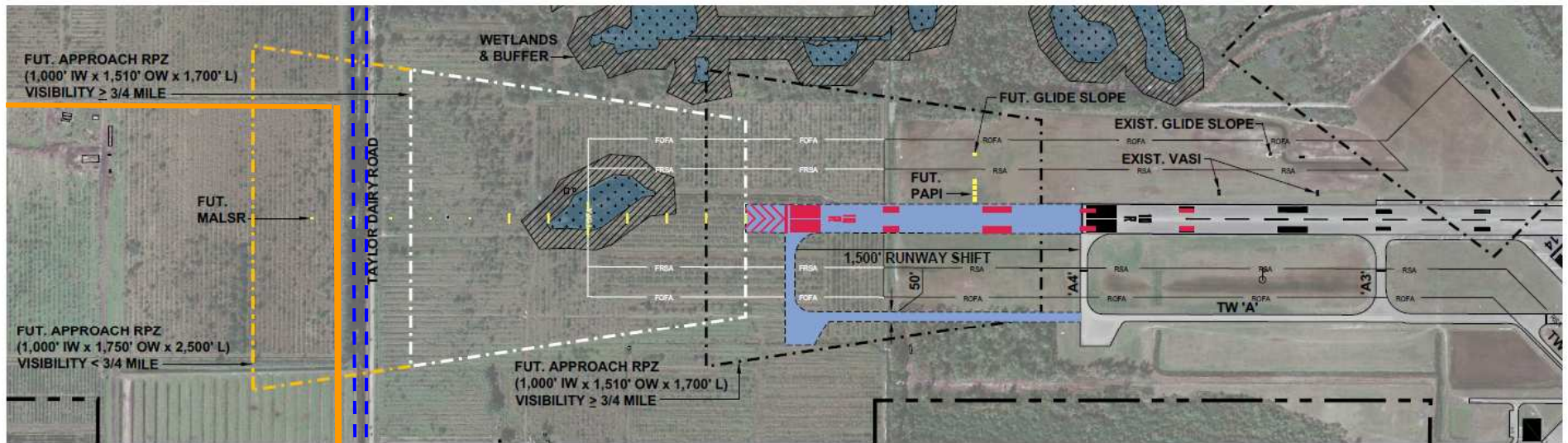


DATE
06/25/2009

FIGURE NO.



Part 150 Recommendation Shift of Runway 10R-28L

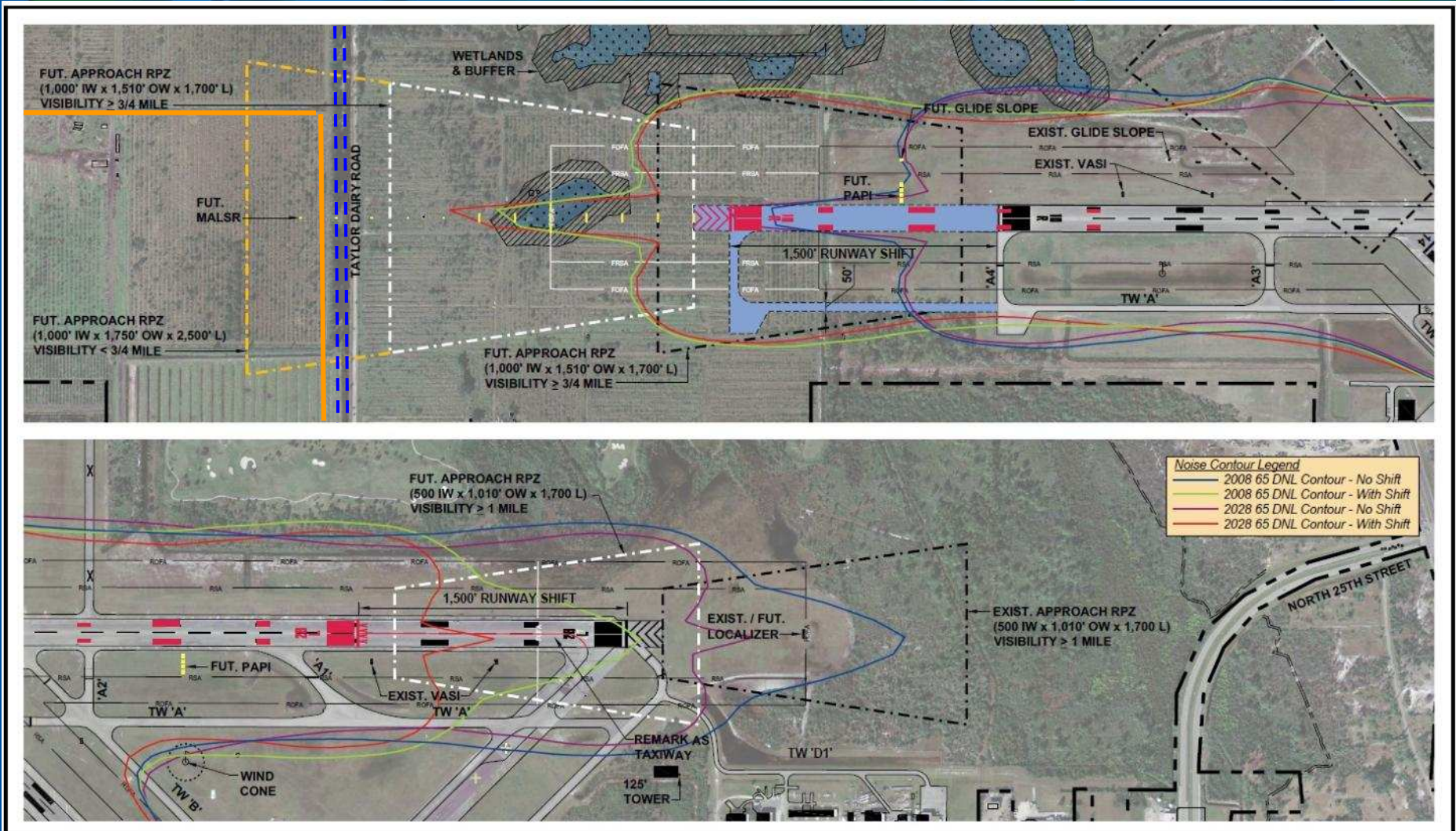


Runway Shift Analysis Notes

- Conducted based on recommendation of 2005 Noise Study
- Runway length remains 6,492' via relocation of both runway thresholds
- Includes impacts to wetland, trees, and navigational aids

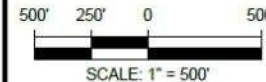


2008 Noise Contours with and without Shift



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RUNWAY 10R-28L
SHIFT ANALYSIS - NOISE



DATE
06/22/2009

FIGURE NO.



Runway 10R-28L Non-Standard Runway Safety Area



SCALE: 1" = 300'



SCALE: 1" = 300'

- ▶ Runway 10R – Dirt Road within RSA
- ▶ Runway 28 L – Retention Area within RSA

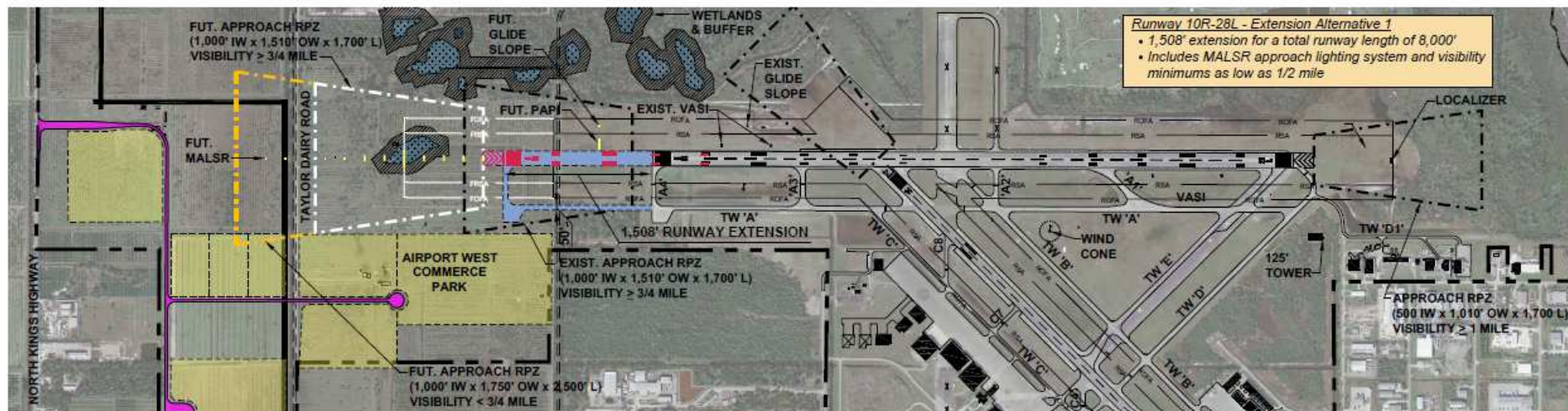


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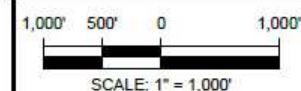


Extension of Runway 10R-28L



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RUNWAY 10R-28L EXTENSION
ALTERNATIVES



DATE
06/25/2009
FIGURE NO.



Commercial Terminal/Customs Options



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PASSENGER TERMINAL &
CUSTOMS ALTERNATIVES -
ALTERNATIVE A

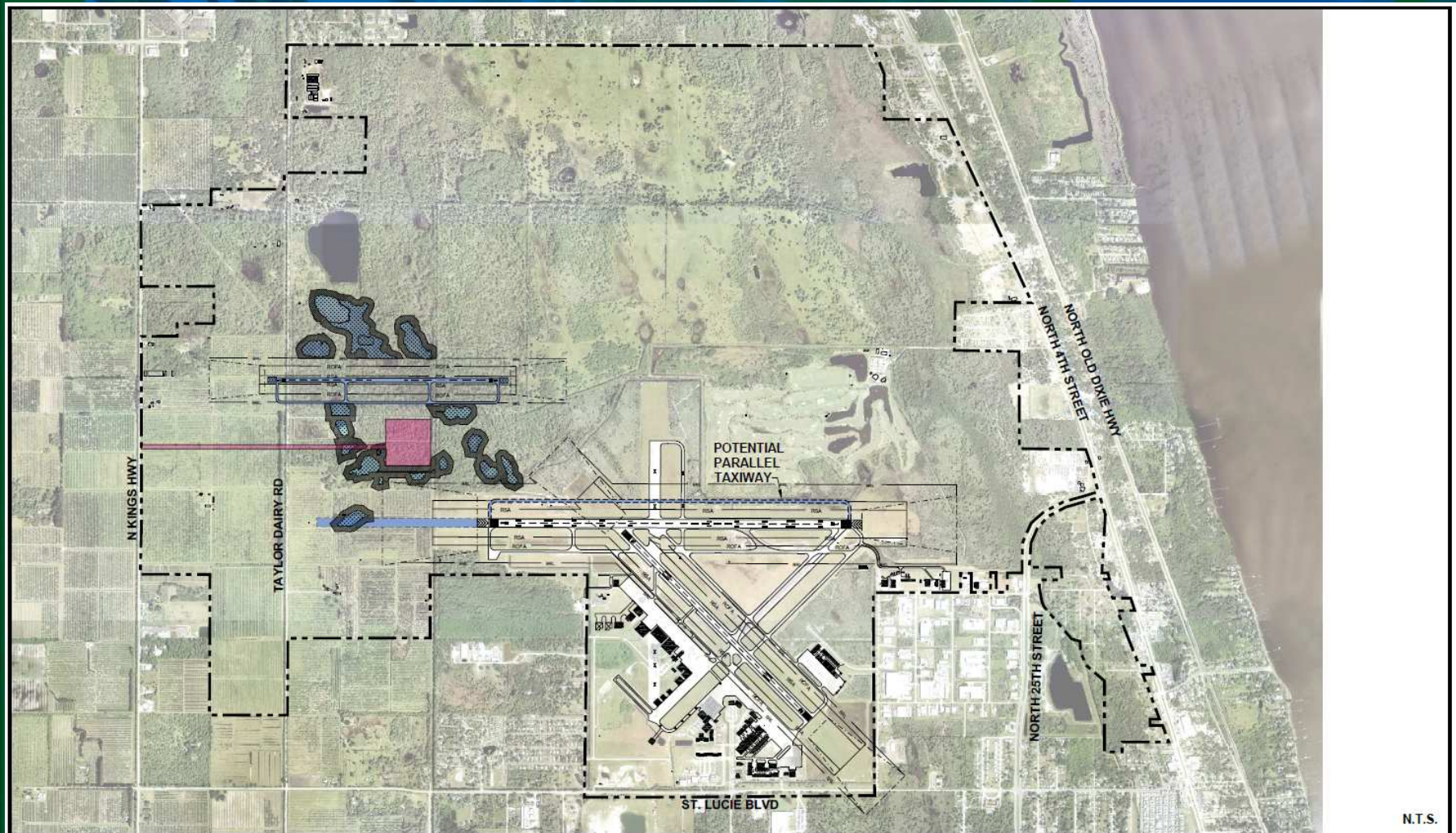


DATE
06/22/2009

FIGURE NO.



Commercial Terminal/Customs Options



St. Lucie County
International Airport
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PASSENGER TERMINAL &
CUSTOMS ALTERNATIVES -
ALTERNATIVE B



DATE
06/22/2009

FIGURE NO.



Commercial Terminal/Customs Options



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International Airport
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PASSENGER TERMINAL &
CUSTOMS ALTERNATIVES -
ALTERNATIVE C



DATE
06/22/2009

FIGURE NO.



Commercial Terminal/Customs Options



N.T.S.



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PASSENGER TERMINAL &
CUSTOMS ALTERNATIVES -
ALTERNATIVE D



DATE
08/25/2009

FIGURE NO.



Airport Facility Requirements

Terminal Facilities

- ▶ *Centralized Airfield Location for future terminal.*
- ▶ *Ease of Surface Access from Interstate*

Support Facilities

- ▶ *ATCT Clear Line of Sight*
- ▶ *Central location for Customs and Border Patrol*
- ▶ *Internal Airport Access Road*
- ▶ *Upgrade electrical vault*



Alternative Airport Development

Exercise 3





Alternative Airport Development Options

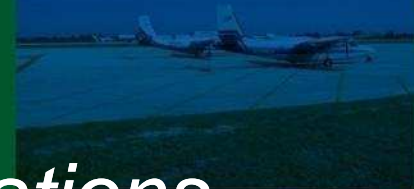
- ▶ *Airfield Development*
- ▶ *Terminal Development*
- ▶ *GA Development*
- ▶ *Aviation Support Facilities*
- ▶ *Non-Aviation Development*
- ▶ *Surface Access*
- ▶ *Sustainable “Green” Development*
- ▶ *Project Phasing and Timing*





Alternative Airport Development

TAC Teams Recommendations





Red Group Recommendations

- ▶ *Move Power Lines to east side of Kings Highway*
- ▶ *Reserve Property for Runway 10R Extension*
- ▶ *Develop Short-Term Terminal Facility at current location of Airport Administration and Custom's facilities*
- ▶ *Construct Long-Term Terminal to be accessed from Indrio Road*
- ▶ *Keep GA leaseholds as they are*
- ▶ *Provide surface access to airport facilities via Indrio Road and expand Indrio Road*
- ▶ *Extend Runway 14 to the Northwest*



Blue Group Recommendations

- ▶ *Extend Runway 10R to the West for total length of 9,500 feet. Do not extend to the east due to topographical issues.*
- ▶ *Relocate Power Lines*
- ▶ *Rebuild existing facilities - reuse of Administration Building for Terminal and improve mixed use*
- ▶ *GA facilities and leaseholds are appropriate to meet long-term demand*
- ▶ *Non-Aviation*
 - ▶ *Eco-Friendly Resort Development*
 - ▶ *Improve Intermodal Access – Add Train Stop at Airport Terminal*
- ▶ *Surface Access*
 - ▶ *North King's Highway*
 - ▶ *Expand St. Lucie Blvd to four lanes*
 - ▶ *Improve access to I-95 and King's Highway*
- ▶ *Seven (7) DRIs Approved*
- ▶ *Industrial Development on the north side of the Airfield*



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Yellow Group Recommendations

- ▶ *Place Future Terminal (Long-Term) in between parallel runways (red option)*
- ▶ *However, make use of what facilities the airport already has in the short-term.*
- ▶ *Need to construct a Beach Resort to attract passengers*
- ▶ *Develop north portion of airport property as industrial*
- ▶ *Improve access to I-95, and expand St. Lucie Blvd.*
- ▶ *Develop Amtrak station near St. Lucie Blvd to provide multi-modal access to Airport.*
- ▶ *Short-Term Extend Runway 10R to 8,000 feet, and reserve property for potential expansion.*
- ▶ *Demand for 100LL decreasing; while demand for Jet A (Kerosene) is increasing.*
- ▶ *Further, GA fleet mix is changing from piston to turboprop and jet engine aircraft fueling an increased demand in Jet A which is cleaner.*



Questions and Comments





Next Steps



St. Lucie County
International Airport
on Florida's Treasure Coast





Alternative Evaluation Criteria

- ▶ *Optimize operational efficiency, effectiveness, capability and safety of the airport.*
- ▶ *Enhance the economic and social value of the airport.*
- ▶ *Meet long-range aviation needs of the community.*
- ▶ *Ensure that current and future airport plans are environmentally compatible and in harmony with local and regional plans and objectives.*
- ▶ *Consider recommendations of the focus groups, user groups, and general public.*



Next Steps

- ▶ Collect comments on Working Paper 2
- ▶ Develop Three Alternative Development Options based upon Tenant, TAC and Public Input
- ▶ Develop Draft Alternative Analysis Chapter
- ▶ Next Meeting – Tentative September 2009:
 - ▶ Present Pros and Cons of Each Alternative
 - ▶ Determination of Final Long-term Design Development
- ▶ Board of County Commissioners Workshop – Tentative October/November 2009

